



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

MAY 29 2015

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Subject: Draft Environmental Impact Statement for Hydropower Licenses, Merced River
Hydroelectric Project FERC Project No. 2179-043-California and Merced Falls
Hydroelectric Project FERC Project No. 2467-020-California, Merced and Mariposa
Counties, California [CEQ# 20150093]

Dear Ms. Bose:


The U.S. Environmental Protection Agency has reviewed the Draft Environmental Impact Statement (DEIS) for the Hydropower Licenses for Merced River and Merced Falls. Our review and comments are pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

EPA recognizes the need for renewable, zero carbon emission power sources in California and welcomes the relicensing process as an opportunity to evaluate and minimize the impacts of existing hydroelectric projects on the regional environment. We note that the DEIS evaluates the impacts of renewing the licenses for Merced River and Merced Falls for up to 50 years and that the purpose of both projects is to "continue to provide a source of hydroelectric power and provide irrigation and domestic water to the local communities." We appreciate that FERC has evaluated the relicensing of the two projects together, given the interrelated nature of their operations and downstream impacts.

Based on our review of the DEIS, we have rated the preferred alternative – Staff Alternative – and the document as *Environmental Concerns – Insufficient Information* (EC-2; see enclosed "Summary of EPA Rating Definitions"). We provide this rating with the understanding that the mandatory license conditions from the California State Water Resources Control Board will be included in the license renewal, as indicated on page xl of the Executive Summary, even though FERC does not recommend all of the conditions and they are not all evaluated as part of the Staff Alternative. In particular, EPA endorses the State Board's Merced River Project Condition 8 and Merced Falls Project Condition 4, both addressing a Fish Passage or Habitat Restoration Plan. We recommend that the Final Environmental Impact Statement include a commitment to require additional minimum and pulse flows; increase the minimum pool in Lake McClure; evaluate all of the State Board's mandatory conditions, including fish passage and habitat restoration; and evaluate the effects of climate change on the projects' environmental impacts. Please see the enclosed detailed comments for additional concerns and recommendations, including specific requests for license reopener language and clarification.

We appreciate the opportunity to review and comment on this DEIS, and are available to discuss the recommendations provided. When the FEIS is released for public review, please send one hard copy and one CD to the address above (Mail Code: ENF 4-2). Should you have any questions, please contact me at (415) 972-3521, or contact Jean Prijatel, the lead reviewer for the project. Jean can be reached at (415) 947-4167 or prijatel.jean@epa.gov.

Sincerely,

For 

Kathleen Martyn Goforth, Manager
Environmental Review Section

Enclosures: Summary of EPA Rating Definitions
EPA Detailed Comments

cc via email: Amber Villalobos, State Water Resources Control Board
William Foster, National Oceanic and Atmospheric Administration, West Coast Region
Steve Edmondson, National Oceanic and Atmospheric Administration, West Coast
Region
Carl Mesick, U.S. Fish and Wildlife Service
John Shelton, California Department of Fish and Wildlife
Robert Hughes, California Department of Fish and Wildlife

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

"Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

U.S. EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR
HYDROPOWER LICENSES MERCED RIVER PROJECT NO. 2179-043 AND MERCED FALLS PROJECT NO.
2467-020, MERCED AND MARIPOSA COUNTIES, CALIFORNIA MAY 29, 2015

Water Quality

The Merced River downstream of the project area is listed for several Clean Water Act Section 303(d) impairments, including water temperature. Water quality standards are designed to protect the designated uses of waterbodies. The Merced River is impaired by high temperatures due to a number of factors, including water diversions and flow restrictions, which impact the designated uses of migration, spawning, and cold water habitat. According to the DEIS, the project applicant Merced Irrigation District conducted modeling studies that show that the Merced River Project operations contribute to water temperature impairments (page 160).

The DEIS states that the purpose of both projects is to “provide a source of hydroelectric power and provide irrigation and domestic water to local communities. (page 6)” All three project dams are and would be operated together with Crocker-Huffman Diversion Dam to manage hydroelectric power generation and diversions for irrigation (page 135), and the timing and amount of flow releases are coordinated for these purposes. Nevertheless, the DEIS states that flow diversions for irrigation are “non-project factors” and mitigation for those diversions’ impacts on water temperature are not appropriate for the proposed licenses (page 163). EPA believes that, given the coordinated nature of these projects for the dual purposes of irrigation and hydropower generation, the DEIS should identify measures that would mitigate the impacts to water quality that would result from project operations for both purposes. With this in mind, we recommend the following:

Flow Regime

Although the minimum instream flows proposed in the DEIS are a great improvement over prior permit requirements, EPA is concerned that the proposed flows would not adequately protect sensitive species as they are substantially lower than the California Department of Fish and Wildlife and National Marine Fisheries Service flow recommendations (Table 3-10, page 148). EPA appreciates that the methodology for addressing seasons and water year types that is proposed in the DEIS is consistent with CDFW and NMFS recommendations; however, the flows proposed by FERC would not meet all the ecological needs of the sensitive species below Crocker-Huffman Dam. In particular, they would not achieve a high enough peak or duration to provide the ecological benefits of spring floodplain inundation (page 175). The proposed flows do not appear to be high enough to sustain existing floodplain restoration projects. Additionally, fall pulse flow magnitudes are below levels recommended by NMFS, US Fish and Wildlife Service, and CDFW for fish migration (page 173).

Recommendation: Include the minimum flows proposed by CDFW and NMFS to protect sensitive species, particularly with regard to floodplain inundation and fish migration.

Minimum Pools

In the DEIS, FERC proposes to maintain a minimum pool of 115,000 acre-feet in Lake McClure; however, the U.S. Fish and Wildlife Service [amended 10(j) recommendation 3(A1)] recommends a minimum pool of 130,000 acre-feet, and California Department of Fish and Wildlife [10(j) recommendation 3F] recommends 265,000 acre-feet. When analyzing these recommendations, the DEIS downplays the actual benefits of this water quality improvement measure. The 265,000 acre-feet minimum pool would improve water temperatures by 3-5

degrees as shown in Figure 3-37 (page 184). The DEIS characterizes this as a “slightly less stressful” water temperature for salmonids and concludes that this slight benefit does not outweigh the loss to irrigation deliveries. FERC, therefore, does not propose increasing the minimum pool requirements above existing conditions. EPA believes that the benefits would be substantially greater than the DEIS concludes. The EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards¹ includes a table summarizing the important water temperature considerations, and associated temperature values, for three life stages of salmon and trout. A weeklong exposure to 21-22°C (69.8-71.6°F) for migrating adults was found to be lethal. A temperature improvement of 3-5 degrees, such as that seen in Figure 3-37 of the DEIS, is actually a very dramatic and important shift, as it moves the temperature curves from above to below lethal limits for the September and October Fall-run Chinook migration life stage.

Recommendation: To improve downstream temperatures for salmonids, increase the minimum pool requirements in Lake McClure.

401 Certification

The DEIS includes, as appendices, the Section 401 certification preliminary conditions that were provided by the State Board in its letter to FERC on July 21, 2014. Most, but not all, of these conditions are evaluated in the DEIS. EPA notes that these conditions will become mandatory when the 401 certification is issued, and as such, all conditions and their impacts should be evaluated in the FEIS.

Recommendation: Evaluate all of the State Board’s mandatory conditions in the FEIS.

Fish Passage, Habitat Enhancement and Gravel Augmentation

The native anadromous fish of the Merced River are limited in the reaches of the river they can access due to several dams, with Crocker-Huffman Dam being the current limit of anadromy. Cold water beneficial uses are assigned to the stretches of the river upstream and downstream of the major dams, and the habitat above the New Exchequer Dam – part of the Merced River Project – has been found to be suitable for salmonids.² The NMFS Central Valley Recovery Plan calls for enhancing the existing population and critical habitat of Central Valley Steelhead below Crocker-Huffman Dam, expanding this population upstream of the limit of anadromy, and reintroducing Central Valley Spring-run Chinook upstream of the limit of anadromy.³

The DEIS does not include fish passage in the preferred alternative; however, it is recommended by the fish agencies (page 189) and included in the NMFS Central Valley Recovery Plan. Fish passage is also an element of a mandatory condition from the State Board. The State Board’s condition for the Merced River Project requires a plan that will either implement fish passage over Crocker-Huffman, McSwain, and New Exchequer Dams or restore habitat and decrease temperatures downstream of the projects. The mandatory condition for the Merced Falls Project states that, should fish passage resume at Crocker-Huffman Dam, a Fish Passage Plan will need

¹ EPA, 2003. EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards. EPA 910-B-03-002. Region 10 Office of Water, Seattle, WA.

² Merced River Fish Passage Feasibility Study, prepared for NOAA/NMFS September 29, 2013.

³ NMFS 2009f. "Public Draft Recovery Plan for Sacramento River Winter-run Chinook Salmon, Central Valley Spring-run Chinook Salmon, and Central Valley Steelhead." NMFS, Southwest Region, Sacramento, California. October 2009.
NMFS 2014d. "Final Recovery Plan for Sacramento River Winter-run Chinook Salmon, Central Valley Spring-run Chinook Salmon, and Central Valley Steelhead." NMFS, West Coast Region, Sacramento, California. July 22, 2014.

to be developed if consultation with NMFS, CDFW, and USFWS determines that fish passage at Merced Falls is recommended. EPA is aware there are efforts underway by CDFW and NMFS to require re-operation of the fish ladder at the Crocker-Huffman Diversion Dam.⁴ Reoperation of the fish ladder and arrival of protected anadromous fish to the base of the project dams are, therefore, reasonably foreseeable, and may warrant inclusion of measures in the FERC licenses to ensure fish passage to historic spawning grounds and protection and restoration of the cold water beneficial uses upstream of New Exchequer Dam.

Recommendation: In the FEIS, analyze fish passage provisions for anadromous species at the project dams in the event of the reasonably foreseeable fish passage on the project-related Crocker-Huffman Dam. EPA understands that fish passage will be evaluated in the State Board's mandatory Fish Passage or Habitat Restoration Plan, but recommends that the FEIS include a preliminary discussion of the impacts of fish passage.

The State Board conditions include a requirement that a Fish Passage or Habitat Restoration Plan be submitted within one year after license issuance. In the DEIS, FERC indicates that habitat restoration would be the preferred option to comply with this condition (page 160), but does not provide an analysis of such restoration. EPA notes that habitat enhancement and restoration can be effective at reducing water temperatures to support spawning and fish migration beneficial uses, particularly through the use of large woody debris, varying channel velocity, and gravel augmentation (discussed below). The habitat restoration required by the State Board condition would be designed to decrease water temperatures in and downstream of the project (page 160). The USFWS, CDFW, and NMFS all include habitat restoration measures in their recommendations for the projects (page 199). EPA believes habitat restoration to be an important element in ensuring the protection of water quality and beneficial uses in the Merced River, particularly in light of the projects' flow constraints on the system in dry years and the cumulative impacts of climate change.

Recommendation: In the FEIS, evaluate the environmental impacts and benefits of habitat restoration in the Merced River as a mandatory condition from the State Board and as mitigation for other water temperature impacts. Commit to conducting or funding salmonid habitat restoration in the Merced River downstream of the projects. Commit to coordinating the Large Woody Debris Plan and Gravel Augmentation Plan with habitat restoration planning.

The DEIS proposes "annual placement of 2,600 cubic yards of gravel in the lower Merced River" (Appendix A page 18); however, a deficit of gravel exists below the dams; therefore, initial replenishment, in addition to an annual maintenance level of placement, is warranted. CDFW recommended "initially adding 50,000 cubic yards cleaned spawning sized gravels to

⁴ CDFG. 2009. Letter from Dr. Single, CDFG, to H. Eltal, Merced Irrigation District and filed with and Kimberly D. Bose, FERC, Re: "Legal Requirements of California Fish and Game Code for Fish Passage at the Crocker-Huffman Diversion Dam." CDFG, Fresno, California. November 16, 2009.

NMFS. 2010. Cover Letter and Technical Memorandum: "Evaluation of Fish Passage and Habitat Conditions in the Merced River Reach between New Exchequer Dam and Crocker-Huffman Dam." NMFS Hydropower and Fisheries Bioengineering Programs. Letter from Mr. Richard Wantuck, NMFS to Mr. John Sweigard, MID and Mr. Steve Nevares, PG&E. November 15, 2010.

NMFS. 2012. Letter from Richard Wantuck (NMFS) to John Sweigard (MID) and Craig Geldard (PG&E) Re: "Resuming Fish Passage Operations at Crocker-Huffman and Merced Falls Dams." NMFS, Southwest Region, Santa Rosa, California.

degraded areas within the 19.5 mile salmonid spawning reach in the lower Merced River,”⁵ to be followed by annual augmentation of 2,600 cubic yards. Similarly, a Merced ID 2011 study⁶ concluded that initial infusions of 540,000-1,640,000 tons of aggregates would need to be followed with annual infusions of up to 2,600 cubic yards of properly sized spawning gravels.

Recommendation: To ensure effectiveness of proposed gravel augmentations, add an initial large scale replenishment of gravel to the Gravel Augmentation Plan consistent with the recommendations above. Coordinate the Gravel Augmentation Plan with habitat restoration planning.

Regulatory Environment

The State Water Resources Control Board is updating its Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta WQCP).⁷ The *Public Draft Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay/ Sacramento-San Joaquin Delta Estuary: San Joaquin River Flows and Southern Delta Water Quality* (SED), released on December 31, 2012, proposed 35% unimpaired flow for the Merced River February through June, which is a slight increase over existing conditions in the Merced River. This proposed flow is included in the DEIS as a footnote about the State Board’s flow requirements (page 152) and as a potential cumulative effect (page 220). EPA understands the State Board is planning to release a revised draft before finalizing the changes; however, the preferred alternative proposes dramatically less than 35% unimpaired flow. If the Projects’ minimum flows do not meet the minimum flows established in the Bay-Delta WQCP, FERC will need to revise its minimum flow criteria for the Merced River and Merced Falls Projects.

Recommendation: Include a discussion of the Water Quality Control Plan in the Regulatory Environment section of the FEIS. EPA recommends including a specific reopener clause in the project licenses to address this reasonably foreseeable change to the project.

Recreation Plans

The DEIS includes proposals to expand recreational facilities at the project reservoirs, such as adding boat docks, campgrounds, and beaches. The DEIS briefly mentions that the construction may increase erosion, but does not analyze the impacts of such actions, which may affect other recreational users, water quality, soils, vegetation, and sensitive species.

Recommendation: Analyze the impacts of expanding recreational opportunities at the reservoirs in the FEIS.

CWA Section 404 Permitting

The purpose of the Clean Water Act is to restore and maintain the chemical, physical and biological integrity of waters of the United States. These goals are achieved, in part, by controlling discharges of

⁵ California Department of Fish and Wildlife Recommended Conditions for Fish and Wildlife Protection, Mitigation, and Enhancement Enclosure A, pp 18-19

⁶ MID. 2011. Technical Memorandum #1-1, Channel Armoring Study with Appendices. By Merced ID, Merced, CA. For both Merced River Hydroelectric Project (FERC P-2179) and Pacific Gas and Electric Company’s Merced Falls Hydroelectric Project (FERC P-2467), January 2011.

⁷ State Water Resources Control Board, 13 December 2006, Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, (Bay-Delta WQCP)

dredged or fill material pursuant to EPA's Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the CWA (Guidelines). Fundamental to the Guidelines is the principle that dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that there is no less environmentally damaging practicable alternative that achieves the Applicant's project purpose. In addition, no discharge can be permitted if it will cause or contribute to significant degradation of waters.

The DEIS does not address whether or not CWA Section 404 would apply to the projects. The DEIS does acknowledge that some of the recreation construction activities may result in erosion in project-affected waters, but it does not state whether or not they would meet the definition of fill and require CWA Section 404 permits. EPA is particularly concerned with the recreation facility construction that would alter shorelines, such as boat launches and shoreline campgrounds.

Recommendation: Include in the FEIS a discussion of the applicability of CWA Section 404 to project construction, operations and maintenance activities. If applicable, discuss the permit requirements under this statute and identify the role of the Army Corps of Engineers in implementing these programs.

Project Scope

The Merced River is the first tributary to contribute noticeable flows to the severely flow-restricted San Joaquin River. As such, water flows and habitat in the Merced River are key to restoration efforts in Sacramento-San Joaquin Delta. The quantity and quality of flows released from the Merced River and Merced Falls projects can help improve conditions for anadromous fish migrating in the system and reduce salinity in the Delta.

The DEIS acknowledges that the "amount of un-diverted water influences the quality of aquatic habitat and the upstream extent of saline water from the San Francisco Bay/Sacramento-San Joaquin Delta Estuary" (page 60), but it does not analyze the impacts to the Delta system in any detail. It does not include habitat impacts for Central Valley Spring-run Chinook salmon or green sturgeon in the Delta.

Recommendation: Expand the geographic scope of analysis for cumulatively affected resources to include the Sacramento-San Joaquin Delta.

Climate Change

On December 24, 2014, the Council on Environmental Quality released revised draft guidance for public comment that describes how federal departments and agencies should consider the effects of greenhouse gas emissions and climate change in their NEPA reviews. The revised draft guidance supersedes the draft greenhouse gas and climate change guidance released by CEQ in February 2010. The new draft guidance explains that agencies should consider both the potential effects of a proposed action on climate change, as indicated by its estimated greenhouse gas emissions, *and the implications of climate change for the environmental effects of a proposed action.*

The DEIS does not include consideration of the potential climatic changes over the course of the proposed 50 year license. This information is readily available, and considering the potential effects of climate change would help provide assurance that FERC has included adequate measures for protection of threatened and endangered species, migration of fish, recreational use of the water body, and protection of water quality standards (including those of the Merced River, the San Joaquin River, and the Bay Delta). Sea level rise is projected to adversely affect the Bay Delta, changes in the timing and amount of precipitation are likely to occur, and temperature increases will affect water demand, aquatic

ecosystems, alter hydrographs and impact power generation. Please see “Climate Change Impacts on High Elevation Hydropower Generation in California’s Sierra Nevada” in California’s First Climate Change Assessment (2006), and the U.S. Global Change Research Program’s 2014 National Climate Assessment for more information about the expected impacts of climate change on California’s water systems.⁸

EPA notes that the State Board conditions for the projects include a reservation of the authority to modify the conditions of the Board’s CWA 401 certification, should future changes in climate significantly alter the baseline assumptions used to develop the conditions of the certification (Appendix E, page 12; Appendix F, page 7). However, FERC’s Draft License Articles require that the State Board file an application to amend the license with FERC should they wish to change the conditions of their certification due to climate change (Appendix B-5). The requirements for approval of such an amendment request are not stated. FERC has responded to EPA concerns about a lack of climate change analysis in a previous DEIS for relicensing (Drum-Spaulding, Yuba-Bear) by stating that the impacts of changing climatic conditions on the projects and aquatic resources were based on analysis of a 33-year period of historical record, and that the Commission’s practice of including reopener provisions in hydropower licenses, coupled with extensive resource monitoring, would enable the Commission to alter license requirements in response to changed environmental conditions. Notwithstanding these opportunities to modify the license and certification, we recommend evaluating the impacts of climate change for the public to review in an EIS.

Recommendations: Add a description of CEQ’s draft guidance for greenhouse gas emissions and climate change impacts to the regulatory requirements section of the FEIS. Provide an analysis of the effects of climate change on the impacts of the Merced River and Merced Falls Projects before finalizing the EIS. We recommend including a commitment in the FEIS and the ROD to allow license reopening due to climate change impacts and clarify the requirements for approval of an amendment application from the State Board. EPA suggests adding a process for reopening the license for climate change impacts to the Drought Management Plan that will be developed by the technical advisory committee.

Management Plans

Proposed environmental measures are listed for the Applicant’s Proposal and Staff Alternative (starting on page 32). The list includes a Large Woody Debris Management Plan, Drought Management Plan, Gravel Augmentation Plan, Anadromous Fish Monitoring Plan, Water Quality Monitoring Plan, among many others, for a total of over 20 plans. These environmental measures are included in the Action Alternatives, but are inconsistently described throughout the resource sections of the EIS and not thoroughly described in the Alternatives chapter.

It appears that most of these plans are separate proposed measures that will be filed separately and individually, and were not part of the initial application. It is unclear whether and how the plans overlap or coincide and little information is provided as to what the plans entail. The plans seem to be integral to the projects and provide mitigation measures for impacts, particularly the Sediment Management Plan, which includes direction and initiatives for ongoing sediment augmentation and removal. None of the

⁸ See climatechange.ca.gov/climate_action_team/reports/first_assessment.html; <http://nca2014.globalchange.gov/report/regions/southwest>; and http://nca2014.globalchange.gov/system/files_force/downloads/low/NCA3_Full_Report_04_Energy_Supply_and_Use_Low_Res.pdf?download=1. Other resources regarding California and climate change can be found at climatechange.ca.gov.

plans are described in the existing conditions (No Action) chapter, so it appears that all the plans contain new actions that are not being currently implemented.

Recommendations: Describe the monitoring and management plans more thoroughly and consistently in the FEIS. Include information regarding timing, responsibility for implementation and enforcement, and specific actions that would be taken under each of these plans. To the extent feasible, include drafts of the plans in the FEIS as appendices.

Water Delivery to Refuges

One of the environmental measures listed for the Merced River Project is to continue to provide 15,000 acre feet of water annually to the Merced National Wildlife Refuge as mitigation for the initial development of the project. The description of the water delivery system to the refuges is unclear in the DEIS. The document indicates that Merced ID proposes to remove the facilities from the license, but maintain them for operation. The actions that are to be taken by Merced ID as part of the FERC license to clean up and/or rebuild the canal system, and the mechanisms and schedules for delivering water, are not described.

Recommendation: If the water delivery facilities and their operation are not part of the FERC relicense, the impacts of this delivery system should be included as a connected or cumulative action in the EIS. In the FEIS, clearly describe the actions that will be included in the license for the deliveries from Merced ID to the refuges, as well as any connected actions outside the license.

Methylmercury

The Merced River, including project reservoirs and the river downstream of the projects, is listed under section 303(d) of the Clean Water Act as impaired for mercury (page 81). The DEIS states that methylmercury was detected in numerous fish tissue samples from the Merced River project's Lake McClure and McSwain reservoir during various studies occurring from 2007 to 2010 and that the results were reported to the California Office of Environmental Health Hazard Assessment. OEHHA determined that tissue concentrations exceed the threshold of 440 parts per billion methylmercury for several fish species and issued health advisories for consumption of spotted bass, largemouth bass, catfish, and Chinook salmon in Lake McClure and spotted bass and largemouth bass in McSwain reservoir (page 95).

In the preferred alternative, Merced ID would continue to restock project waters with fish for recreational angling. The project's fish restocking activities would provide fish that contribute to methylmercury bioaccumulation and promote recreational angling; therefore, continued monitoring of mercury bioaccumulation would be an appropriate environmental measure to monitor the impacts of project operations.

Recommendation: In the FEIS, provide a discussion of the health impacts of consuming fish that contain elevated concentrations of methylmercury. EPA recommends that the ROD commit to a continuation of the monitoring of methylmercury found in the fish that are annually stocked by Merced ID. If monitoring continues to reveal exceedances of OEHHA's methylmercury standards, the Recreation Plan should include provisions for signs to be posted in languages understood by likely recreationists to warn them of the risks of consuming fish that exceed recommended health levels. More information regarding methylmercury can be found at EPA's website: water.epa.gov/scitech/swguidance/standards/criteria/aqlife/pollutants/methylmercury.

Consultation and Coordination with Tribal Governments

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments (November 6, 2000), directs federal agencies to establish tribal consultation and collaboration processes for the development of federal policies that have tribal implications, and is intended to strengthen the United States government-to-government relationships with Indian tribes. The DEIS describes FERC's efforts with regard to tribal consultation and states that the Southern Sierra Miwuk Nation requested formal consultation with Merced ID and FERC regarding the project (page 350). A Traditional Cultural Property study was conducted and consultation with the Southern Sierra Miwuk Nation continues.

Recommendation: In the FEIS, discuss the status of consultation with tribes affected by the project and the impacts and mitigation measures identified through that consultation. Include the tribes in the distribution list of the FEIS and Record of Decision.

